

U.S.S.N. 09/759,845
Amendment dated December 20, 2004
Reply to Office Action of August 12, 2004

REMARKS

Responsive to the Official Action mailed August 12, 2004, applicants have further amended the claims of their application in an earnest effort to place this case in condition for allowance. Specifically, claims 1, 6, 8, and 10 have been amended. Reconsideration is respectfully requested.

The Examiner's withdrawal of the rejection based upon U.S. 5,308,691, to Lim et al., is noted.

In the Action, the Examiner objected to claim 10, and rejected claims 10-13 under 35 USC §112. Claim 10 has been revised to correct an inadvertent informality regarding the more preferred viscosity range for the polypropylene from which the recited nonwoven fabric layer is formed. It is believed that the claim objection and this rejections, can be withdrawn.

In rejecting the pending claims under 35 USC §103, the Examiner has relied upon U.S. Patent No. 6,191,221, to McAmish et al., in view of European Patent No. 0 570 215, to Ferrar et al., and further, with reliance upon the Ferrar et al. patent, in view of U.S. Patent No. 5,762,643 to Ray et al. However, it is respectfully submitted that applicants' novel nonwoven fabric/film laminate is clearly patentably distinct from the these references, even when combined, and accordingly, the Examiner's rejections are respectfully traversed.

Applicants must respectfully maintain that a careful study of the cited references shows that even when combined, they clearly fail to teach or suggest applicant's novel laminate construct. As discussed in applicants' specification, the present laminate construct exhibits a desirable combination of physical properties, including moisture vapor transmission, liquid impermeability, and sufficient strength to facilitate handling and installation when used in the construction industry such as a "housewrap" or the like. As has been acknowledged by the Examiner, none of the individual cited prior art references teach or suggest such a combination of features, and it is respectfully submitted that even when the teachings are combined, the present laminate construct is neither taught or suggested.

Applicants are familiar with the commonly-owned McAmish et al. patent, but it is respectfully noted that the shortcomings and the teachings of this reference in suggesting the present invention will be readily appreciated. As specifically noted by the Examiner, McAmish et al. contemplates that if the film disclosed therein is used in combination with a nonwoven fabric, and that "the basis weight of the fabric is not critical" (column 3, lines 58-60).

As specifically discussed in the present application, the importance of providing a spunbond polypropylene nonwoven fabric layer having a specified basis weight is, in fact, very important for providing a laminate construct which exhibits sufficient strength so as to permit use in construction-related applications. Applicants have emphasized

such importance by setting forth a specific basis weight range for the claimed nonwoven fabric. By specifying a closed-ended range, Applicants have identified a minimum fabric weight for achieving the desired strength characteristics, as well as a maximum fabric weight so as to facilitate convenient, cost-effective use. Clearly, the generalized, off-hand statement in McAmish et al. that the "basis weight of the fabric is not critical", clearly does nothing to teach or suggest applicants' claimed basis weight range, and can be readily interpreted as teaching a way from such a specifically recited range.

In view of the clear shortcomings in the teachings of the McAmish et al. reference, the secondary Ferrar et al. patent must be carefully considered in the context of the rejection pursuant to 35 USC §103. In this regard, it is important to note that the Ferrar et al. document is specifically limited in its teachings to a *thermally bonded laminate*, with a formation of s "intermittent bond pattern", preferably covering from 5-50% of the surface area of the laminated layers (column 2, lines 45-48). Significantly, it is believed that the resultant plurality of embossed bond cites undesirably impacts drapeability and *breathability*. This is a clear deficiency in the supplemental teachings of the Ferrar et al. document, and moreover, clearly supports the conclusion that it would not be an obvious expedient to those skilled in the art to modify the teachings of the principal McAmish et al. reference in light of the teachings of the Ferrar et al. patent.

U.S.S.N. 09/759,845
Amendment dated December 20, 2004
Reply to Office Action of August 12, 2004

In this regard, reference is respectfully made to MPEP, Section 2143, which specifically admonishes that “the prior art must suggest the desirability of the claimed invention” (citations omitted). It is respectfully maintained that one skilled in the art would not consider the teachings of Ferrar et al., in forming an extrusion-coated construction since Ferrar et al. contemplates that the resultant fabric laminate may have *up to 50% of its surface area* thermally bonded, thus inhibiting the breathability feature which is specifically set forth in the presently pending claims.

Additionally, as noted by the Examiner, Ferrar et al. contemplates use of spunbonded nonwoven fabrics in the basis weight range from typically 10 grams/meter² to 200 grams/meter². There is a clearly a lack of recognition in this secondary reference, critical to the rejection under 35 USC §103, of employing a polypropylene spunbond fabric within the claimed basis weight range, wherein the fabric is selected to exhibit sufficient strength, without excessive use of the thermoplastic resin from which it is formed.

In this regard, the Examiner cites *In re Aller*, for the proposition that discovering the optimum or workable ranges involves only routine skill in the art. In the present case, it is respectfully maintained that applicants' pending claims are directed to far more than mere “optimization”. Applicants' claims are specifically directed to a nonwoven fabric/film laminate formed by *melt-extrusion* (rather than thermal bonding at fused bond cites). Applicants' claims specify a discrete basis weight range, and

moreover, specify a *melt flow rate* which facilitates cost-effective formation of the recited nonwoven fabric layer so that it exhibits the desired level of strength and air permeability. As specifically discussed in the Specification, this type of nonwoven fabric has shown a 40% to 60% increase in strength over a similar spunbond fabric made of the same equipment using a typical 35MFR polypropylene resin. The enhanced durability achieved with this specific polymer formulation, *which is not taught by any of the cited references*, permits the present laminate construct to meet required building codes.

Applicants are not aware of any teachings in the Ferrar et al. reference regarding the combination of fabric basis weight and polypropylene melt flow rate, as claimed. Thus, it is respectfully maintained that the combined teachings of the McAmish et al. and Ferrar et al. patents clearly do not teach or suggest applicants' claimed laminate material construct.

In the Action, the Examiner has further rejected the pending claims on the basis of the combined teachings of the Ferrar et al. and Ray et al. patents. The deficiencies in the teachings of the Ferrar et al. patent have been noted, including a failure to teach or suggest applicants' specific basis weight range, with no teachings or suggestion whatsoever of forming the recited polypropylene spunbond fabric layer from polypropylene material exhibiting the specified melt flow rate. Again, under such circumstances, the teachings of the secondary Ray et al. patent must be carefully

considered to see if they can be reasonably interpreted to overcome the clear deficiencies of the teachings of the principal Ferrar et al. patent.

The Examiner has acknowledged that Ferrar et al. fails to disclose the use of a monolithic breathable film, as specifically set forth in the presently pending claims. Ray et al. contemplates extrusion of a vapor permeable, liquid impermeable coating material onto the top surface of an apertured substrate, with application of vacuum to the bottom surface of the substrate. In each of the three examples set forth in Ray et al., the substrate is described as a patterned polyethylene substrate. As such, this reference clearly fails to overcome the deficiencies in the teachings of the principle Ferrar et al. reference in teaching the use of a spunbond polypropylene fabric having a basis weight within a specified range, as well as a viscosity within a specified range.

Applicants must respectfully disagree with the Examiner's assertion that it would be "obvious to one of ordinary skill in the art to optimize the viscosity of the polypropylene material". This is belied by the fact that *none of the cited references* teach applicants' specifically recited viscosity characteristics for the spunbond polypropylene fabric layer. Applicants respectfully refer to MPEP, Section 2143.03, which specifically requires that to establish *prima facie* obviousness, *all the claim limitations must be taught or suggested by the prior art* (citation omitted).

In the Action, the Examiner has acknowledged that limitations of strip tensile strength and cross-direction are not explicitly taught by Ferrar et al. or Ray et al. The

U.S.S.N. 09/759,845
Amendment dated December 20, 2004
Reply to Office Action of August 12, 2004

Examiner goes on to state that it would be "reasonable to presume" that such limitations would be met by the combination of the references. Applicants must respectfully disagree, when the references individually and collectively *clearly fail to teach all of applicants' claimed elements*. Under such circumstances, to "presume" that fabrics which would result from the combined teachings of the references would exhibit applicants' claimed structural characteristics *cannot* be reasonably made, since the references fail to teach the features of applicants' claimed structure.

In view of the foregoing, formal allowance of claims 1, and 3-13 is believed to be in order and is respectfully solicited. Should the Examiner wish to speak with applicants' attorneys, they may be reached at the number indicated below.

The Commissioner is hereby authorized to charge any additional fee which may be required in connection with this submission to Deposit Account No. 23-0785.

Respectfully submitted,

By 
Stephen D. Geimer, Reg. No. 28,846

WOOD, PHILLIPS, KATZ, CLARK & MORTIMER
500 West Madison Street, Suite 3800
Chicago, Illinois 60661-2511
312/876-1800



U.S.S.N. 09/759,845
Amendment dated December 20, 2004
Reply to Office Action of August 12, 2004

CERTIFICATE OF MAILING

I hereby certify that this paper is being deposited with the United States Postal Service with sufficient postage at First Class Mail in an envelope addressed to:
Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450 on
December 20, 2004.

A handwritten signature in black ink, appearing to read "Anne O'Leary". It is written over a horizontal line.